

## Air Force begins assembly on the first 747-400F Airborne Laser flying platform

by Rich Garcia, Directed Energy Directorate

EVERETT, WASH. — U.S. Air Force and industry officials recently helped a Boeing-led industry team kick off the start of major assembly for the first Airborne Laser flying platform – a 747-400 freighter – at the Boeing assembly plant here.

Dr. Lawrence Delaney, the U.S. Air Force's top acquisition executive, headlined the milestone event. He also toured the Boeing 747 assembly line with ABL officials from Boeing, Lockheed Martin and TRW.

An Air Force and industry team is developing a high-energy chemical oxygen-iodine laser that will be carried aboard a modified Boeing 747-400. The laser-equipped aircraft will be able to shoot down theater ballistic missiles launched hundreds of miles away.

Air Force plans call for a fleet of seven aircraft to be ready for rapid deployment within 24 hours to any spot around the globe. The fleet's mission is to deter potential use of theater ballistic missiles. More than 30 nations today are believed to have at their disposal more than 13,000 of those missiles. Many of those countries also are known to have or been developing nuclear, chemical and biological capabilities for their missiles.

Also attending the event were U.S. Air Force officers from the Airborne Laser System Program Office at Kirtland AFB, N.M.; and senior Air Force team members from the Pentagon in Washington, D.C.; Air Force Materiel Command at Wright-Patterson AFB, Ohio; Air Force Space and Missile Systems Center at Los Angeles AFB, Calif.; and Air Combat Command at Langley AFB, Va.

Delaney, who is assistant secretary of the Air Force for acquisition, along with Boeing and government officials, spoke at a ceremony commemorating this major assembly start. Towering over ceremony participants at the Everett assembly plant was a representative 747-400 airplane nearing completion.

Work also began on the freighter's main-deck floor grids, signaling the beginning of major assembly on the ABL platform. In addition, major assembly began on the wings, and airplane's body sections.

This initial aircraft is the first to be acquired for Air Force use under the military's new commercial "off-the-shelf" philosophy. The plane also is the third-ever Boeing 747-400 to use a new fuselage assembly process that significantly improves quality, reduces rejection tags and cycle time.

"I'm impressed with Team ABL's progress; the design is rock-solid and the technology proven," Delaney said. "The [ABL] is on-track to be on the leading edge of theater missile defense."

"Boeing has made ABL one of its top corporate commitments," said Jim Albaugh, president of Boeing Space & Communications Group. "Team ABL is an excellent example of doing business better and smarter by leveraging diverse technical expertise across industry to develop a remarkable system that will help maintain the peace."

As Team ABL leader, Boeing is responsible for creating the surveillance system, developing the battle management and command and control system, integrating the weapon system, and supplying the 747-400. Team member Lockheed Martin is developing the beam control/fire control system, and TRW is providing the chemical oxygen iodine laser and ground support.

"It is gratifying to see that real partnership produces real results," said Paul Shennum, Boeing vice president and Team ABL program director. "This contract was awarded in late 1996, and today we are marking the beginning of major manufacturing of the 747-400 platform for the first Airborne Laser.

"This is a real tribute to teamwork, to small teams, innovative ideas and hands-off leadership. We're

building a great system that will give Americans a defense for the first time against theater ballistic missiles.”

This aircraft will be the first U.S. Air Force aircraft of the new millennium. With major assembly beginning today, the 747-400 freighter is scheduled to roll out from the Everett assembly line in December 1999. It then will be delivered to Wichita, Kan., for an 18-month modification program.

During the preliminary design and risk reduction phase, the industry team is designing, developing, integrating and testing the system. The effort will culminate with the planned test destruction of Scud-type missiles by the ABL in 2003.

A ground and flight test program begins in 2001 and continues through 2003 with a lengthy series of tests of the system against representative missiles. @